Have you tried our App for Android?
Features include:

- Weight Calculator
- Imperial / Metric Converter
- Data Sheets
- Branch Locations

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Materials Distribution

Bespoke Aluminium Extrusion

thyssenkrupp
Materials (UK) Ltd

thyssenkrupp

Content

thyssenkrupp Materials UK Ltd

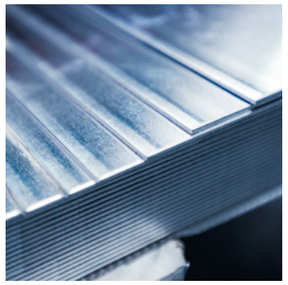
thyssenkrupp Materials (UK) Ltd are part of thyssenkrupp AG which employs 155,000 people in around 80 countries working with integrity, credibility, consistency and expertise to exceed the demands of our customers.

Working round the clock with 7 strategically located warehouses and processing centres throughout the UK, thyssenkrupp Materials (UK) has the geographic presence to meet specific customer demands. Our integrated transportation network facilitates a highly responsive and reliable delivery service. Our divisions in the UK are thyssenkrupp Materials Stockholding, Vetchberry Coil Processing, Mild Steel, Logistics, Aerospace and Materials Trading.

We are the leading supplier of:


Aluminium

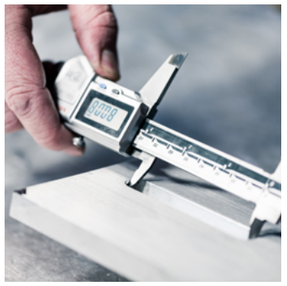
Mild Steel


Stainless Steel


Road Transport


Coil Processing


Fabrication


Cut to size


Architectural Cladding

Click on the images to discover more

UK Network - We have you covered

DUNMURRY, NI

Size 2,500m²
Stockholding sales office
Stockholding warehouse

+44 (0)844 326 7300

CRADLEY HEATH

Size 12,000m²
Head Office
Stockholding sales office
Central stockholding warehouse
Plate processing
Bar processing

+44 (0)1384 563900

SWINDON

Plate & Bar sales office

+44 (0)1793 836 400

TYLDESLEY

Size 4,600m²
Stockholding sales office
Stockholding warehouse
Road Transport saw

+44 (0)161 703 2000

VETCHBERRY STEELS

Size 10,000m²
Coil processing centre
Sales office

+44 (0)121 322 2345

MILTON KEYNES

Sales office only
Transport hub

+44 (0)844 257 0337

CAMBERLEY

Size 2,000m²
Stockholding sales office
Mild Steel sales office
Stockholding warehouse

+44 (0)1276 673 173

Click on the here to discover more

Safety Starts Here

“To keep Safe and be Healthy, so that everybody goes home”

We give top priority to health and safety at work.
We focus on people. Every employee should be able to perform their work well and return home safe and sound.

Our objective is therefore to avoid accidents, work-related illnesses, as well as physical and psychological stresses at work.
We empower all employees who work for us to act in a safe and healthy way.

#SAFETYBYCHOICENOTBYCHANCE

occupational safety and health
because we care

Stockholding & distribution.

Managing the flow of goods between the producer and our customers.

thyssenkrupp has invested in premises, storage and material handling equipment, as well as IT facilities and our people to ensure consistent, reliable and secure supply.

With processing centres, warehouses and sales teams strategically located throughout the UK, thyssenkrupp has the geographical presence to meet the specific demands of our customers.

thyssenkrupp's specialist partnerships with customers enables us to create a unique, flexible approach to individual customer needs. With experience and expertise in process optimisation and cost reduction, thyssenkrupp is a preferred supplier to major OEMs rand their supply chains worldwide.

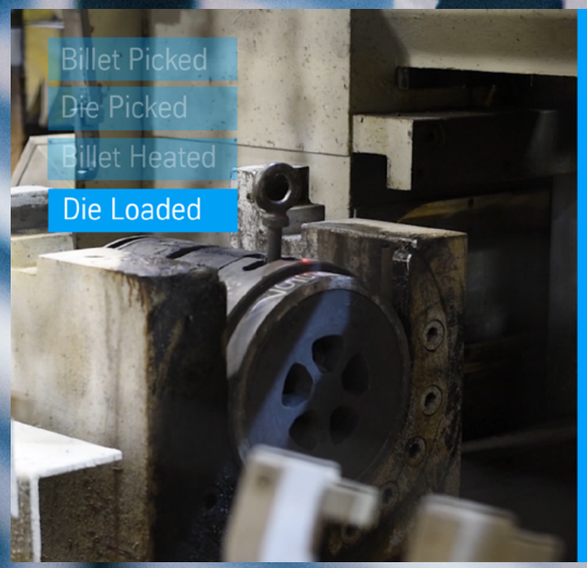
Our warehouse in Cox's Lane, Cradley Health

What is Aluminium Extrusion?

Extrusion is a process used to create objects of a fixed cross-sectional profile. A material is pushed through a die of the desired cross-section.

The extrusion process can be done with the material hot or cold.

See the extrusion process by clicking on the video below.



Dies are craned in using a 3 hook system for safety.

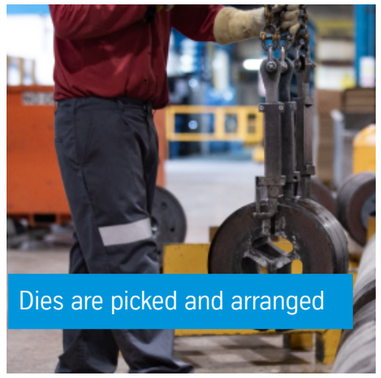
One die is pre-loaded whilst one is already in use. This speeds up thre process and keeps delays to a minimum.

The Extrusion Process

Billet Picking

The process starts with a billet being picked and cut ready for processing.

Billets can be made from recycled aluminium, saving waste, energy and cost.



Dies are picked and arranged

Dies are picked from the vast amount stored onsite, prearranged for speed loading and pre-heated in an oven to approximately 450°C.

Billet is loaded into the furnace

Billets are loaded into the furnace and heated to approximately 475°C. They can take up to 6 to 7 minutes to reach the required temperature. The billets are heated to make the aluminium malleable and able to be extruded.

Die is removed from oven

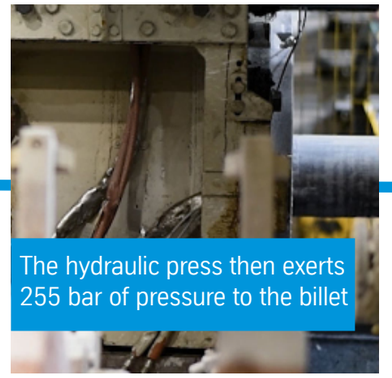
Once the die is heated to the correct temperature, it is removed. The dies can only be stored to a maximum of 8 hours in the ovens. This makes sure the shape is not affected in any way.

The die is loaded

Dies are craned in using a 3 hook system for safety. One die is pre-loaded whilst one is already in use. This speeds up the process making sure delays are minimal.

Billet is automatically craned from the furnace to the press

This is fully automatic with minimal contact for safety and efficiency.



The hydraulic press then exerts 255 bar of pressure to the billet

Prior to any new billet being pressed the press will slice off any left over billet, to make sure the extrusion is seamless.

The aluminium is then extruded to the shape of the die

Material can be pressed to a maximum of 2800T creating a pressure inside the die as high as 30kg per square mm.

The material is stretched to shape

The material can run up to 10m a second from the press, so to make sure material is straight, the arm slightly stretches it.

The saw cuts to size

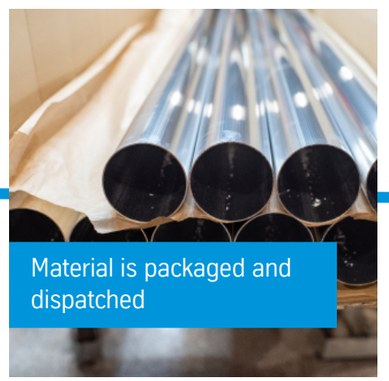
In order to make sure that the material can process along the rollers it is cut at pre-determined lengths.

Material rolls along the bed to cool

Material then cools as it rolls along the bed to quality inspection.

Quality checks are performed

Production quality is paramount, so pieces are manually checked for size and shape. Any that don't make the grade are rejected and recycled back into billets.



Material is packaged and dispatched

Once quality checked, the material is packaged according to its shape and size. This makes sure it arrives to you the same way it left us.

The first step to reality

What is a die?
The die is the shape to which the aluminium extrusion will be made to. Dies are custom to your requirements and can be very intricate.

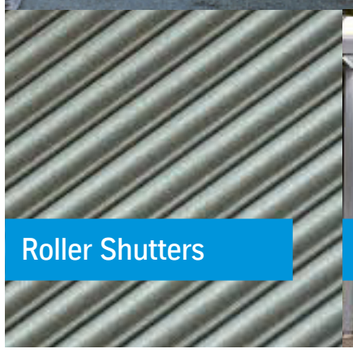
How are they made?
Dies are created by CNC milling machines. These machines are programmed by skilled operatives that take your CAD drawing and turn it into the first physical step to becoming your extruded material.

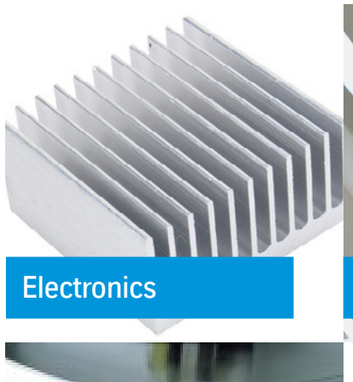
Water cooled machines allow for the production of precise and clean shapes without fatigue or stress being placed on the billet. Once the die is cut it is then sent to the quality department to be checked and measured to make sure that the shape is accurate. A trial run is then performed on the press and again this extruded material is then quality checked.

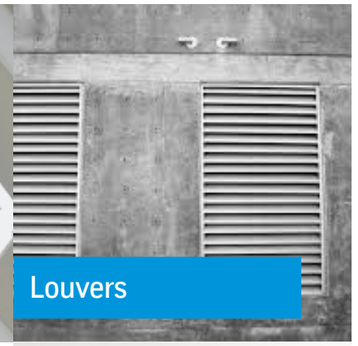
Dies are maintained by hand

How are they checked and maintained?
The customer always owns the shape and the manufacturer owns the physical die. This means maintenance of the die when it fatigues or breaks is conducted before it is placed in the press, saving time, cost and material. This is conducted in the workshop by highly skilled and trained operatives. Fractions of millimetres are removed using hand tools, making sure that the shape is exactly the same each and every time it is used.

How Aluminium is used







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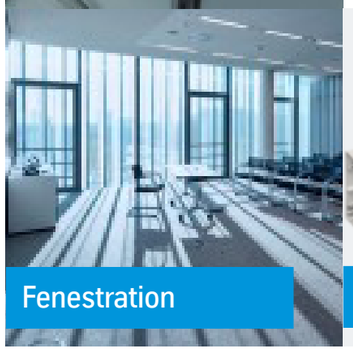


Walk down the street, and undoubtly you will see aluminium extrusion being used
Walk through the office, and undoubtly you will see aluminium extrusion being used
Walk through a factory, and undoubtedly you will see aluminium extrusion being used

The applications are everywhere

Benefits of Aluminium Profiles

Low cost
The extrusion process is very cost effective and is able to produce different designs of profiles to fit the different applications. Using aluminium profiles is more economical and does not affect the strength or integrity.

Reuse and recycle
That means when your product reaches the end of it's life there are no disposal headaches. In fact quite the opposite: it will have some value. Don't overlook the option of just disassembling a product made from extruded section and putting the pieces to work in a different way.

Structural Integrity
The use of aluminium profiles does not affect the strength of integrity of the structure or the performance of the application for which it is being used. Instead, using the right profiles can greatly improve the quality of the end product while cutting project costs significantly.

Corrosion Resistant
When used in different applications, aluminium profiles bring with them the corrosion resistance properties of aluminium. The profiles are able to safeguard sensitive parts of the structure like joints from corrosion over time and guarantee quality results in the long run.

Customisable
Aluminum extrusion is a versatile product. From window frames to street furniture or something similar.

We can help you design a section to produce any type of aluminium profile right down to the details of surface finish and tolerance. The ability to customise expands the application of aluminium profiles and allows for

Quality Assured

We are dedicated to providing our customers with a product that meets their expectations. We operate an effective, efficient Quality Management System meeting the requirements of ISO 9001:2015.

Full material traceability is maintained at all times through our robust quality management systems.

All material dispatches can be accompanied by a certificate of conformity or a test certificate which is validated by our trained quality staff against the material specification and manufacturing tolerances.

Perfecting Partnerships

Specialising in partnering with customers enables us to create a unique, flexible approach to individual customer needs. Our experience and expertise in process optimization and cost reduction makes us the preferred and approved supplier to major OEMs and their supply chains worldwide.

Supply Solutions

We will work with you to ensure flexible effective solutions to complex supply situations. Our complete service includes individual customer solutions and we work together with you to develop strategies that optimise material flow and reduce inventory costs. We can also provide complete management of the supply chain.

From Die to Delivery

Design
Due to our scale and expertise, we have probably encountered and found a solution to most extrusion problems. As well as our UK team, we can call on the resources of experts within thyssenkrupp worldwide and engage a range of specialists from our supply partners.

Production
As we are not tied to one manufacturing facility we can select the most appropriate manufacturer(s) for your product. This means we can create a bespoke supply solution that solves your specific supply problems.

Fabrication
We have a range of fabrication possibilities from simple cut to length to a fully machined or kitted product.

We can select the best supply route for your product, whether it be quick in house

Storage
Is your space at a premium? We can offer a range of stockholding solutions to solve your space issue. At its simplest, we can stock locally and deliver next day to your site. Or we can manage the supply chain to reduce lead times and eliminate the need to carry as much stock at your site.

Service
All Aluminium extrusion accounts are serviced by dedicated extrusion sales teams who take care of the details of your account, from stock lists to packing specifications. Our teams understand that your extrusion is critical to your business and will tailor a solution specific to your individual needs.

Delivering your promises

What good is having a first class stock holding and processing business without having first class logistics to deliver our promises?
thyssenkrupp has it's own subdivision to cater for all logistical needs and can deliver anything from small packages to full articulated loads.

State of the art
Using state of the art vehicle tracking software, we know the position of our drivers at all times and how they can best deliver quickly. Our system plans routes, avoids traffic and ensures that when we say that it's going to be there, it's there!

How's my driving?
Our trucks are fitted with driving sensors that inform us of our drivers driving habits. This helps us to ensure that our fleet is as economic as possible and enables us to reduce transport costs through lower fuel rates.

We've got it covered
We cover 95% of the UK on a next day delivery from any one of our 6 service centres.

Click here to discover more

Click here to see our dedicated Bar team running the saw

Need more than you can store yourself?

Not to worry, we can stockhold and deliver according to your production requirements.

Stockholding

Cut to Size

At thyssenkrupp, we have decades of experience offering premium aluminium products and services. In addition to our wide range of aluminium sheets, we also have aluminium plates cut to size to suit your bespoke needs.

With our aluminium sheet cut to size service, you can choose your grade of choice, thickness, length, and width. We use high-quality equipment to tailor the materials to your preferred dimension and provide you with ready to use aluminium plates and sheets.

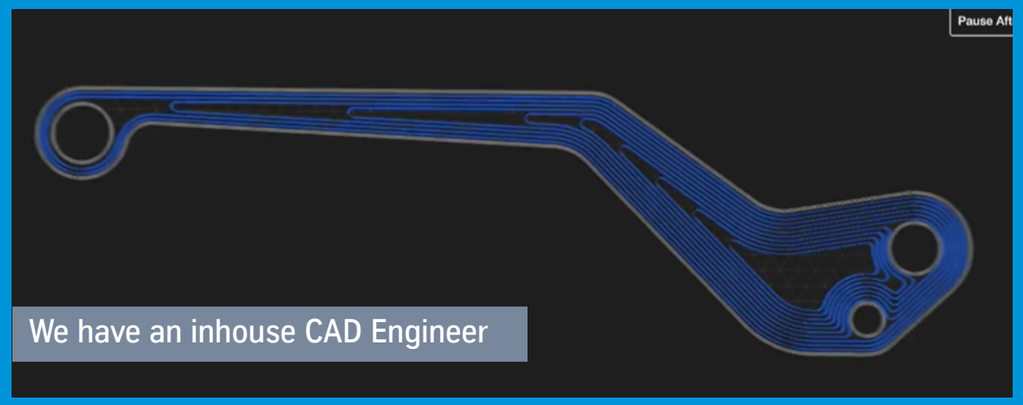
With our excellent equipment and precise cuts, we will ensure the best results for your application. Get in touch with our team today to have your aluminium sheets and plates cut to size.

3D Printing is no longer a vision of the future

Do you want to hold a sample of your section before making the commitment to production tooling?

Now you can. We can have a full-size 3D printed ABS Sample made in-house and shipped to you.

Our Mark Forged printer using Onyx filament. This is Nylon mixed with chopped carbon fiber offers a high-strength thermoplastic with excellent heat resistance, surface finish, and chemical resistance. Onyx has a flexural strength of 81 MPa (11.7 ksi).



We have an inhouse CAD Engineer

We can print your sample within hours

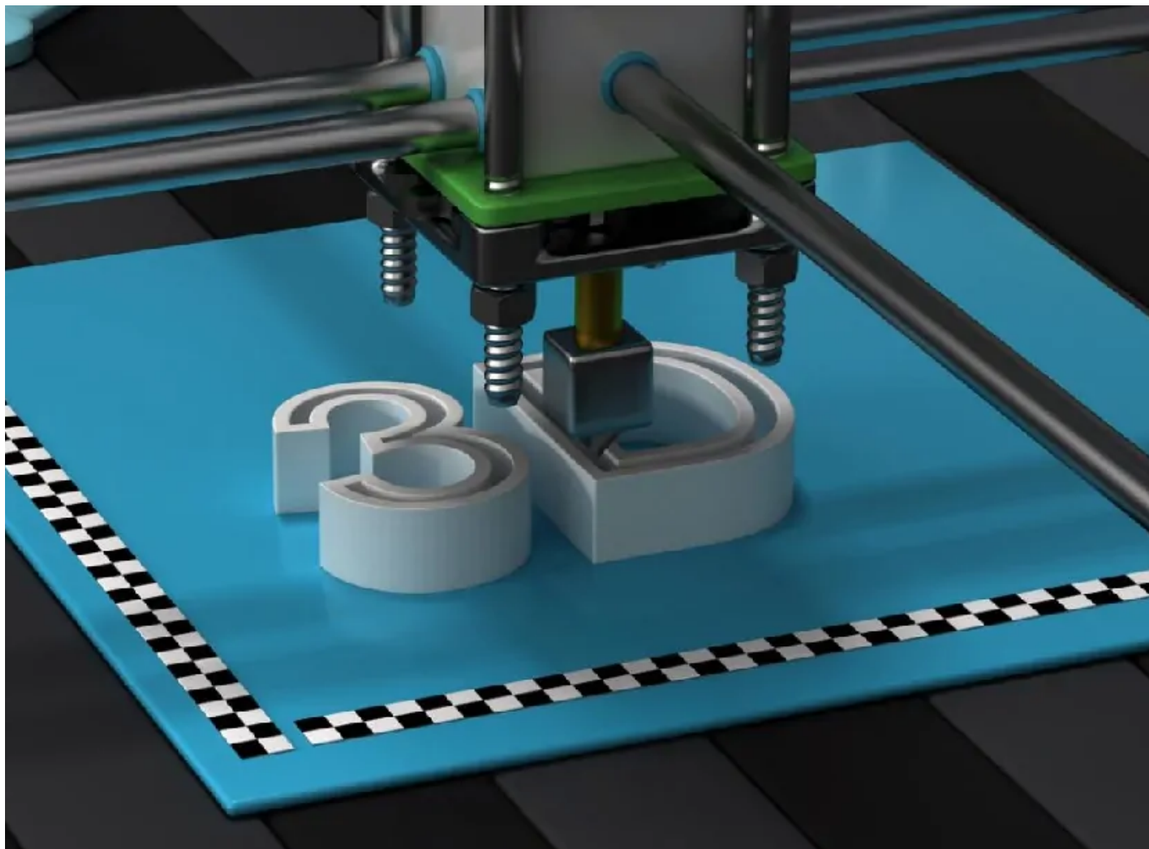
What is 3D Printing?

3D printing is a way of creating three dimensional (3D) solid objects.

This is done by building up the object layer by layer. Usually, 3D printers use plastic, because it is easier to use and cheaper. Some 3D printers can 3D print with other materials, like metals and ceramics, but they cost too much money for most people.

3D printers are useful because they can make new objects very fast, and are good at making them very detailed. This means an engineer can test a lot of new designs and not have to wait for someone else to make them. They are also useful for fixing parts made of plastic, and for making toys, figures, and models. There are a lot of people who print 3D objects at home.

Since 2003, many more materials printers have been sold than before.



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We stock an array of different products.

Contact us for more information, we are always happy to help.

Click Here to Contact Us or Email the team
sales.tkmuk@thyssenkrupp.com